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LISTING OF CLAIMS

1. (Previously presented) A method of monitoring flatness of an extreme ultraviolet (EUV) lithography mask, comprising:

chucking the EUV mask to a chuck;

scanning the chucked EUV mask with a contactless capacitance probe to generate a first elevation data set for the EUV mask;

generating a first flatness profile using the first elevation data set;

comparing the first flatness profile against flatness tolerance parameters; and

if the first flatness profile exceeds the flatness tolerance parameters:

removing the EUV mask from the chuck;

checking at least one of the EUV mask and the chuck for contamination;

if contamination is present, cleaning a contaminated area; and

rechucking the EUV mask to the chuck.

2-5. (Canceled)

²/~~6~~. (Previously presented) The method according to claim 1, further comprising:

rescanning the EUV mask with the capacitance probe to generate a second elevation data set for the EUV mask; and

generating a second flatness profile using the second elevation data set.

³/~~7~~. (Original) The method according to claim ²/~~6~~, further comprising comparing the first flatness profile and the second flatness profile.

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~~8.~~ (Previously presented) The method according to claim 1, further comprising:

rotating the EUV mask with respect to the chuck before rechucking the EUV mask;

rescanning the rotated EUV mask with the capacitance probe to generate a second elevation data set for the EUV mask; and

generating a second flatness profile using the second elevation data set.

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~~8.~~ (Original) The method according to claim ⁴~~8~~, further comprising comparing the first flatness profile and the second flatness profile to determine if detected flatness variations rotated with the rotation of the EUV mask.

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~~10.~~ (Original) The method according to claim ⁵~~8~~, further comprising adjusting a set of electrostatic clamping forces used to retain the EUV mask to the chuck if the detected flatness variations rotated with the rotation of the EUV mask.

11-13. (Canceled)

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~~14.~~ (Previously presented) A system for monitoring flatness of an extreme ultraviolet (EUV) lithography mask, comprising:

a mask platen assembly including a chuck with a mask mounting surface for receiving the EUV mask and electrostatically retaining the EUV mask to the chuck;

a contactless capacitance probe for scanning the EUV mask to generate elevation data for the EUV mask; and

a controller for receiving the elevation data and generating a flatness profile using the elevation data and for controlling the electrostatic clamping forces of the mask platen assembly, wherein the controller executes logic to:

conduct a first scan of the EUV mask while chucked to generate a first flatness profile and, following a rotation of the EUV mask with respect

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to the chuck, conduct a second scan of the EUV mask while chucked to generate a second flatness profile; and

compare the first flatness profile and the second flatness profile to determine if detected flatness variations rotated with the rotation of the EUV mask.

15. (Canceled)

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~~16.~~ (Previously presented) The system according to claim ⁸~~14~~, wherein the controller executes logic to adjust a set of electrostatic clamping forces used to retain the EUV mask to the chuck if the detected flatness variations rotated with the rotation of the EUV mask.

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~~17.~~ (Previously presented) The method according to claim 1, wherein the EUV mask is a reflective mask.

18-19 (Canceled).
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¹⁰ ~~20.~~ (Previously presented) The system according to claim ~~14~~, wherein the EUV mask is a reflective mask.